American S. S. China, Capt. F. W. Wise, observer, V. D. Forbes, Singapore for San Francisco.

Gale began on the 15th; lowest barometer, 29.41 inches at 4 p. m. of the 16th, in latitude 32° 40′ N., longitude 133° 35′ E.; wind at that hour, NNE., force 10; shifts of wind, ENE., NE., E.; highest force 10,

The China previously had experienced a fresh gale, on the 13th-14th, when in latitude 31° 30' N., longitude 123° 30' E., at which time the barometer fell to 29.51 inches.

Américan S. S. West Kader, Capt. Ludwig Petting,

observer, C. E. Johnson, Shanghai for Kobe.

Gale began on the 17th; lowest barometer, 28.68 inches at 4.30 p. m. of the 19th, in latitude 30° 48′ N., longitude 127° 28′ E.; wind at that hour NE., force 8; end of gale on 20th; shifts of wind, NE., SE.; highest force, 12, ESE. During the height of the storm the West Kader was hove to, stern to sea.

As was the case in July, a large amount of fog was reported by vessels on the northern steamship routes.

## GALES IN THE SOUTH PACIFIC OCEAN.

Several vessels on routes between North American and Australian ports experienced gales in the South Pacific Ocean at the end of July and the beginning of August. The British R. M. S. Tahiti, Capt. A. M. Edwin, observer, J. W. Murray, Sydney for San Francisco, via Wellington, ran into heavy weather on leaving the first-named port on July 28 and also on leaving Wellington on August 3. Low pressure prevailed over the Tasman Sea between the dates named, the lowest reading recorded being 28.97 inches. The British R. M. S. Niagara, Capt. J. T. Rollo, observer, P. W. B. Denniston, Honolulu for Sydney, was involved in the same general storm from July 31 to August 3. The American S. S. Ventura, observer, C. S. Vickery, Sydney for San Francisco, felt the last of the gale on leaving port on the 3d. Reports are as follows:

R. S. M. Tahiti

Gale began on July 28; lowest barometer 29.71 inches at noon of that date off Sydney Heads; wind then SSW., force 10, with very rough sea; end of gale on 29th; wind steady from SSW.; highest force, 10. Gale began in early morning of 3d and ended at noon of same date; lowest barometer, 29.02 inches, occurred at 12.30 a. m. in latitude 38° 03′ S., longitude 178° 50′ E.; wind steady from NW., highest force, 9; high sea.

R. S. M. Niagara.

Gale began on July 31; lowest barometer 29.10 inches at 8 p. m. same date in latitude 34° 17′ S., longitude 162° 56′ E.; wind at that hour W. by N., force 8, high sea; moderate gale still blowing on arrival at Sydney at 11.30 a. m. August 3; shifts of wind, W. by N. to SW.

## S. S. Ventura.

Gale began on 3d; lowest barometer 29.27 inches at noon, same date, in latitude 33° 50′ S., longitude 151° 18′ E.; wind at that time, W. by N., force 9; heavy following sea and swell; gale ended on 4th; shifts of wind, W. by N. to WSW.; highest force, 9, W. by N.

## CRUISE OF U. S. S. BEAR IN ARCTIC OCEAN.

During the month of August, 1921, the U.S. Coast Guard cutter Bear made a cruise in the Arctic Ocean, proceeding along the north coast of Alaska as far east as the Canadian boundary, longitude 141° W. Lieut. Commander C. S. Cochran, commanding the Bear, and Lieut. R. T. McElligott, acting as meteorological observer, have furnished the Weather Bureau with a report of the

weather experienced during the voyage.

The Bear passed Cape Lisburne northward bound on the 3d and reached the end of the outward voyage on Returning, Bering Strait was passed on the the 16th. 27th. Between the 3d and 16th the wind was almost constantly from the ENE., the force generally varying from 3 to 6, Beaufort. The temperature of the air, as observed at Greenwich mean noon, or from about 1 a. m. to 2.30 a. m., according to the position of the vessel, ranged from 50° to 30° F. The average temperature for the period between the 3d and 9th was 42° and for that between the 10th and 16th, 35°. For the corresponding according to the surface waster sponding periods the temperatures of the surface water were 45° and 32°, respectively.

Between the 18th and 21st the wind was westerly, mostly WSW., force 1 to 5; average air temperature, 41°, water temperature, 42°. On the 22d the wind turned to ENE. and on the 23d to E., remaining then between E. and S. until the 27th and varying in force from 2 to 6. The air temperature from the 22d to the 17th averaged

50°, water temperature, 54°.

Lieut. McElligott states that in general the weather during the cruise was foggy, misty, and hazy. There was not a day without its period of fog or mist. Generally the fog lifted after noon, then holding on and off until night. At Point Barrow it swept across the point in waves. East of there the fog was heavy, lifting as a rule in the morning, settling again in the late afternoon or The last three days of the voyage were marked by several hours of rain and many showers. On the 31st, when approaching St. Michaels, the day broke bright and clear, with fracto-cumulus clouds all around the horizon.

## NOTES ON WEATHER IN OTHER PARTS OF THE WORLD.

British Isles.—Conditions were unsettled throughout the month, with depressions from the Atlantic crossing the British Isles. In the north and west the rainfail was large, but in the southeast of England, it was again below normal, being much less than might have been expected from the distribution of pressure.

France.—At the beginning of the month the drought was continuing in France with undiminished severity. Forest fires and the destruction of mills and farms were being reported daily, the largest being that of the forest of Vorey-sur-Azon, which at one time threatened the towns of Vorey and Bellevu. Heavy rain fell later in southern France, and severe floods on the Garonne and its tribu-

Snow fell in Savoy on the 15th. Switzerland.—Heavy rain has fallen in many parts of

Switzerland, breaking the prolonged drought.

Norway.—Spitzbergen, August 6.—The heat wave has at last struck Lapland and the polar regions. With the thermometer at 86 degrees, the Eskimos have thrown away their fur garments and are organizing bathing parties. For most Eskimos this bath will be the event of a lifetime, perhaps never to be repeated. The game

and reindeers are suffering intensely.— New York Evening Post, August 7, 1921.

China.—Peking, August 25.—Hundreds of villages have been destroyed and thousands of persons left homeless by an overflow of the Hoang-ho, or Yellow River, which, after a month of heavy rainfall, has flooded large areas of the province of Shantung. \* \* \* There has been widespread destruction of crops over the districts of Shantung which, during the last spring and summer, have been suffer-

ing from famine.—New York Tribune, August 26, 1921.

Australia.—Melbourne, August 4.—Recent heavy weather, accompanied by considerable snowfall and heavy rain, in the State of Victoria, Australia, is causing considerable anxiety in shipping circles there. Even in Melbourne, where such conditions are most unusual, several ocean vessels are overdue and there is concern about coastwise traffic.—New York Journal of Commerce, August 5, 1921.

The gales and floods in eastern Australia in July were followed in New South Wales and Victoria by the coldest weather experienced for a quarter of a century. Snow has fallen in districts where it has never been seen before.1

<sup>&</sup>lt;sup>1</sup> Meteorological Magazine, September, 1921, pp. 232-246.

<sup>&</sup>lt;sup>1</sup> Meteorological Magazine, September, 1921, pp. 232-240.